



# Innovation in Atmospheric Sciences Virtual Workshop

18 May 2021 | Online

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EU GREEN WEEK 2021 PARTNER EVENT

*All times are in CEST*

## OPENING SESSION

|              |   |  |
|--------------|---|--|
| <b>09:00</b> | <b>Welcome &amp; Introduction to the Workshop</b>                   |  |
|              | Workshop Introduction & Opening                                     | <b>Jean Sciare</b><br>CARE-C, The Cyprus Institute |
|              | R&I strategy of EU Research Infrastructures in Atmospheric Sciences | <b>Paolo Laj</b><br>Université Grenoble Alpes      |

## ORAL PRESENTATIONS

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|--------------|--|--|
| <b>09:30</b> | <b>International initiatives and opportunities</b>   |  |
|              | ATMO-ACCESS Trans-National Access Opportunities  | <b>Sabine Philippin</b><br>CNRS                                |
|              | The International Methane Emissions Observatory  | <b>Stefan Schwietzke</b><br>Environmental Defense Fund         |
|              | PROBE: Advancing ground-based atmospheric boundary layer profiling at the European scale through EU COST         | <b>Simone Kotthaus</b><br>Institut Pierre Simon Laplace        |
|              | EUPHORE simulation chambers: An innovative tool for testing instruments and environmental solutions              | <b>Amalia Muñoz</b><br>CEAM Foundation - EUPHORE Labs          |
|              | Research & Innovation Funding Opportunities in Atmospheric Sciences  | <b>Pierantonios Papazoglou</b><br>CARE-C, The Cyprus Institute |
| <b>10:30</b> | <b>COFFEE BREAK</b>  |  |
| <b>10:40</b> | <b>Miniaturized in-situ atmospheric sensors</b>  |  |
|              | Laser technology advances for UAV-based greenhouse gas analysis  | <b>Frederic Despagne</b><br>ABB                                |
|              | A new mobile platform of ACTRIS for UAV-based atmospheric profiling  | <b>Maria Kezoudi</b><br>CARE-C, The Cyprus Institute           |
|              | Miniaturized air sampling techniques: Key to successful determination of Volatile Organic Samples in Air Samples | <b>Jose Ruiz Jimenez</b><br>University of Helsinki             |
|              | Characterization of a cost-effective condensation particle counter   | <b>Juha Kangasluoma</b><br>University of Helsinki              |
|              | Miniaturized Sensors for Probing Air Quality: Potential Applications and Methods for Assessing their Performance | <b>Spyros Bezantakos</b><br>CARE-C, The Cyprus Institute       |

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| <b>11:40</b> | <b>New atmospheric database</b>   |   |
|              | Towards an observation-based monitoring capacity for anthropogenic emissions of CO <sub>2</sub>   | <b>Richard Engelen</b><br>ECMWF   |
|              | EUMETSAT Innovation in Aerosol and Cloud Characterisation   | <b>Thierry Marbach</b><br>EUMETSAT  |
|              | Integrated In-Situ Observations, An Asset to Verify the Climate Policy Actions and Adopting Green Economy   | <b>Hanna Lappalainen</b><br>University of Helsinki                                      |
|              | NRT provision of aerosol remote sensing profiles to CAMS: An ACTRIS/EARLINET pilot system   | <b>Lucia Mona</b><br>CNR  |
| <b>12:20</b> | <b>LUNCH BREAK</b>  |   |
| <b>13:00</b> | <b>Recent developments in Remote Sensing and Mass Spectrometry</b>  |   |
|              | Tropospheric temperature and humidity profiling with a new compact, relatively low cost lidar system developed by Raymetrics S.A.                   | <b>George Tsaknakis</b><br>RAYMETRICS S.A.  |
|              | Innovation solutions for Air Quality monitoring and LIDAR calibration   | <b>Guido Di Donfrancesco</b><br>ALA Advanced Lidar Applications s.r.l.                  |
|              | Single analyzer for gas-phase and the condensed organics  | <b>Jens Herbig</b><br>IONICON Analytik Ges.m.b.H.                                       |
|              | Observe twice as many molecular species with your high resolution mass spectrometer by using a MION?  | <b>HJ Jost</b><br>Karsa Ltd   |
|              | Recent Developments for the Aerosol Chemical Speciation Monitor   | <b>Philip Croteau</b><br>Aerodyne Research, Inc   |
| <b>14:00</b> | <b>Advances in Atmospheric Modelling</b>  |   |
|              | Aria Technologies: Experience In The Middle East And Latest Innovations In Air Quality Modelling  | <b>Fanny Velay</b><br>ARIA Technologies   |
|              | Origins, monitoring the near-real-time greenhouse gas emissions for a low-carbon transition   | <b>Jinghui Lian</b><br>Origins Earth  |
|              | Insights on multi-time resolution PMF: testing different time resolutions and uncertainty weightings  | <b>Marta Via</b><br>IDAEA-CSIC  |
| <b>14:30</b> | <b>COFFEE BREAK</b>   |   |
| <b>14:40</b> | <b>New in-situ aerosol instrumentation</b>  |   |
|              | Harmonization of in-situ number concentration and size distribution measurement techniques  | <b>Sebastian Schmitt</b><br>TSI GmbH  |
|              | The M2AS: Mass and Mobility Aerosol Size distribution measurement with the CPMA   | <b>David Walker</b><br>Cambustion Ltd   |
|              | A dual-wavelength photo-thermal interferometer for the determination of aerosol optical absorption coefficient and the absorption Angstrom exponent | <b>Luka Drinovec</b><br>Haze Instruments d.o.o.   |
|              | Improved sampling of aerosol nanoparticles - Example of a collaboration between academic and industry   | <b>Katrianne Lehtipalo</b><br>University of Helsinki & Finnish Meteorological Institute |
| <b>15:30</b> | <b>New in-situ gas instrumentation</b>  |   |
|              | All-in-one instruments for monitoring of air pollutants and greenhouse gases  | <b>Morten Hundt</b><br>MIRO Analytical AG   |
|              | SPECTRONUS™ - A high precision multi species GHG analyzer for the next generation of observation networks and process studies                       | <b>Jost Lavric</b><br>Ecotech   |
|              | Continuous Monitoring Of Greenhouse Gases And Hazardous Air Pollutants With Cavity Ring-Down Spectroscopy   | <b>Magdalena Hofmann</b><br>Picarro   |
|              | Development of on-line and field TD-GC-FID/MS for automatic and continuous ambient air monitoring   | <b>Franck Amiet</b><br>Chromatotec Group  |

## vPICO SESSIONS

| <b>16:10 New Analytical Techniques &amp; Data Analysis</b>                      |  |   |
|---|--|---|
|   | Nanoscale IR-imaging and spectroscopic characterization of air-filtered pollution nanoparticles using s-SNOM   | <b>Adrian Cernescu</b><br>Attocube systems AG   |
|   | Spectral Aerosol Optical Depth and Angstrom Exponent From Ground-Based Fourier Transform Infrared Spectrometry   | <b>África Barreto</b><br>AEMET (Izaña Observatory)  |
|   | Intercomparison between online GC and PTR-TOF in a station of Switzerland's National Air Pollution Monitoring Network (NABEL)  | <b>Felipe Lopez</b><br>TOFWERK AG   |
|   | Peak concentrations measured at a station of Switzerland's National Air Pollution Monitoring Network (NABEL)   | <b>Mark Gonin</b><br>TOFWERK AG   |
|   | HERMES: an integrated tool dedicated to online data treatment and display of submicronic aerosol chemical composition  | <b>Benjamin Chazeau</b><br>Aix-Marseille University   |
|   | A software tool for the aerosol microphysical retrieval from atmospheric lidar data  | <b>Alessia Sannino</b><br>Università degli Studi di Napoli Federico II                                    |
|   | Combination of two Doppler lidars to simultaneously retrieve wind vector and turbulence  | <b>Johannes Bühl</b><br>Leibniz-Institute for Tropospheric Research (TROPOS)                              |
|   | Instrument combination through inversion methods: Innovative improvement of our understanding of aerosol dynamics  | <b>Dominik Stolzenburg</b><br>Institute for Atmospheric and Earth System Research, University of Helsinki |
| <b>16:30 New Developments in Atmospheric Instrumentation and Infrastructure</b> |  |   |
|   | Characterization of a chemical modulation reactor for the measurement of atmospheric hydroxyl radicals with a laser-induced fluorescence instrument  | <b>Changmin Cho</b><br>Forschungszentrum Juelich  |
|   | A new high-resolution sampler for the study of fine and coarse aerosol composition: STRAS (Size and Time-resolved aerosol sampler)   | <b>Fabio Giardi</b><br>University of Florence   |
|   | The BOx of Clustered Sensors (BOCS). A low-cost air quality system for long-term monitoring  | <b>Sebastian Diez</b><br>University of York   |
|   | Cork city's low-cost air sensor network shows PM2.5 levels vary significantly across the city  | <b>Dean Venables</b><br>University College Cork   |
|   | Engineering, Construction, and Operation of Cloud Simulation Chambers for Atmospheric Research   | <b>Ottmar Möhler</b><br>Karlsruhe Institute of Technology (KIT)   |
|   | Towards a new FRM4DOAS site in the Po Valley   | <b>Paolo Pettinari</b><br>University of Bologna, ISAC-CNR   |
| <b>16:45 Recent Research Achievements In Atmospheric Sciences</b>               |  |   |
|   | High resolution unattended particle-bound total carbon measurements and source identification at the Jungfraujoch global GAW station   | <b>Alejandro Keller</b><br>University of Applied Sciences<br>Northwestern Switzerland                     |
|   | The presence of microplastic in the Total suspended particles  | <b>Jagoda Worek</b><br>AGH University of Science & Technology   |
|   | The feedback of clouds on the Heating Rate of black and brown carbon   | <b>Luca Ferrero</b><br>University of Milano-Bicocca   |
|   | Dynamic of the atmospheric boundary layer over two rural sites with doppler lidar  | <b>Pablo Ortiz Amezcua</b><br>University of Warsaw  |
|   | Modeling and spatial characterization of aerosol at Middle East AERONET stations   | <b>Chukwuma Anoruo</b><br>University of Nigeria, Nsukka   |
|   | The characteristics of the urban atmosphere in Moscow megacity and their radiative and meteorological properties according to modelling and measurement in different conditions including the 2020 Spring lockdown due to COVID-19 | <b>Natalia Chubarova</b><br>Lomonosov Moscow State University   |
|   | On the role of the ocean in simulating extreme atmospheric events  | <b>Antonio Ricchi</b><br>University Of L'Aquila/CETEMPS   |
|   | Assessment of GHG emissions from transport sector of Azerbaijan  | <b>Sadig Hasanov</b><br>The Institute of Radiation Problems   |
|   | Seasonality of PM10 sources at traffic and urban background air monitoring stations: Case study from Krakow, Southern Poland   | <b>Lucyna Samek</b><br>AGH University of Science & Technology   |
| <b>17:10 Q&amp;A Parallel Sessions</b>  |  |   |
| <b>17:30 End of Workshop</b>  |  |   |

